

A signal reception method including method and apparatus for receiving a signal, down converting the received signal through multi-tone down conversion to form an intermediate signal, and decoding the intermediate signal to extract data. In an embodiment, the received signal may include multiple transmission bands of a multi-code (MC)- CDMA signal, each of which occupies a different spectrum. Each of the transmission bands also includes an information channel signal. When the received MC-CDMA signal is down converted through multi-tone down conversion, the intermediate signal is formed. The intermediate signal includes a common spectrum that includes an information channel from a plurality of transmission bands. When the intermediate signal is decoded, data from a plurality of information channel bands is extracted. The method and apparatus may be implemented in a multi-mode MC-CDMA/CDMA receiver.